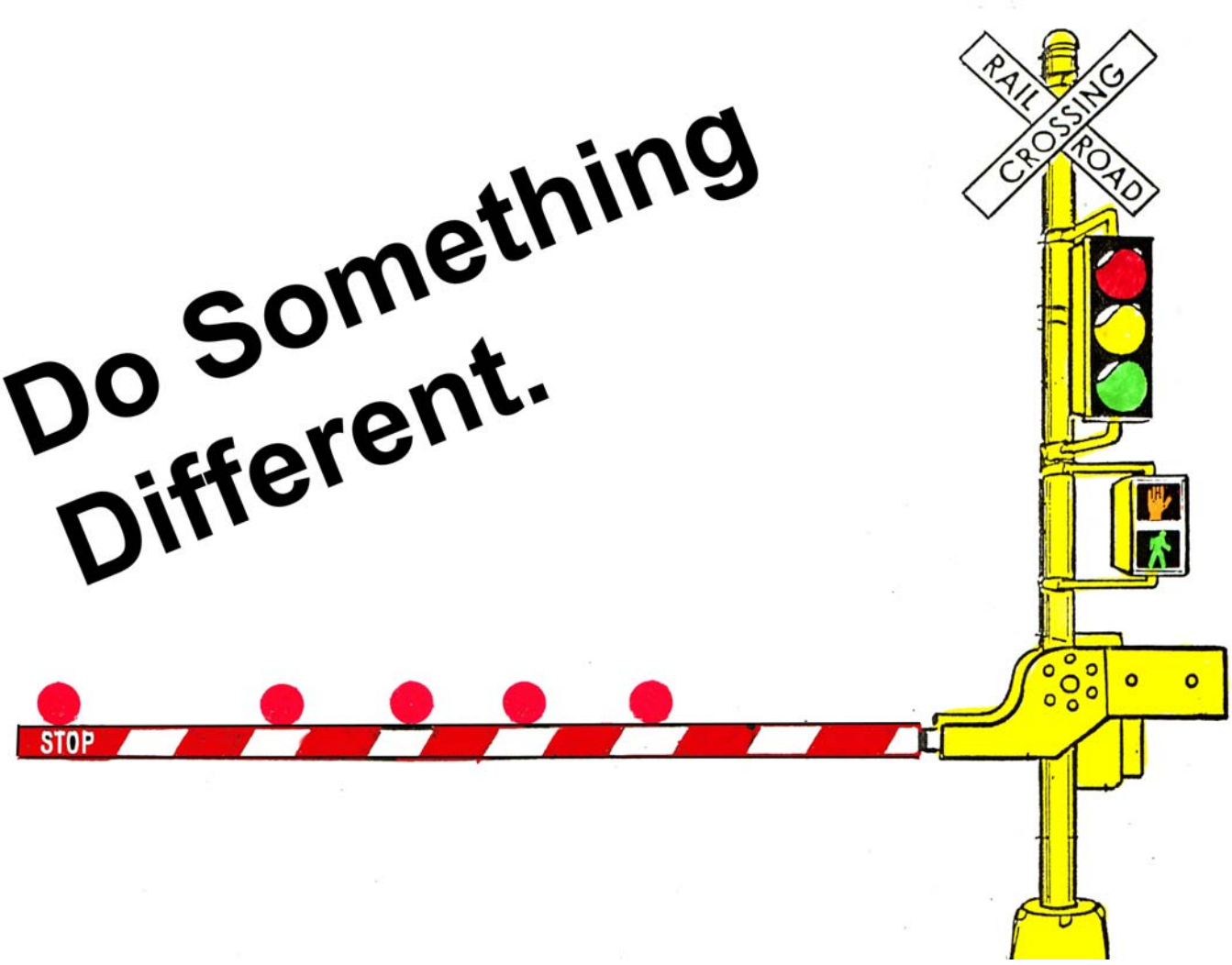
Do Something Different.



SAFE CROSSING CONCEPT

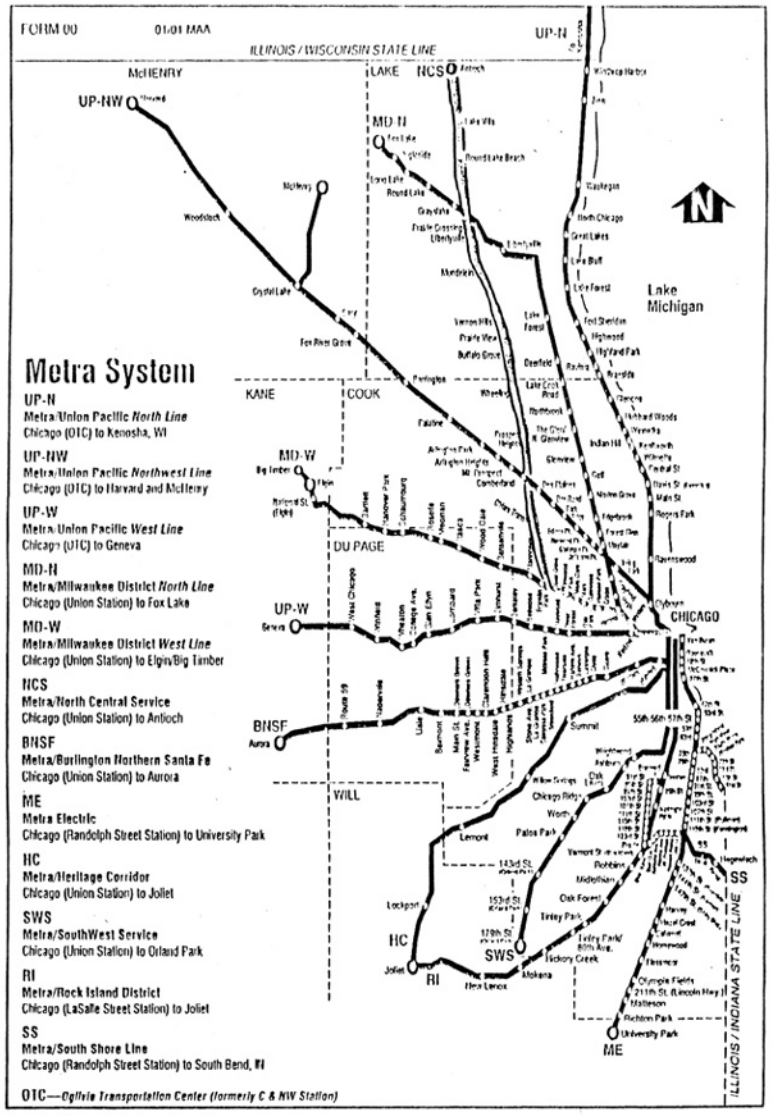
”EFFECTIVE TRAFFIC CONTROL devices -- properly positioned and operational signs, signals and pavement markings -- are one of the critical elements that ensure the safe and efficient operations of our streets and highways. In today’s era of driver distraction, the controversy over cell-phone usage in the car, effective traffic control devices are more important then ever.

Traffic control devices provide the driver with guidance and instruction on how to safely and effectively use our roadways. Uniformity of size, color and shape also provide a consistent message to road users that they can expect to see the same traffic control application anywhere in the United States. Additionally, uniformity provides manufactures of traffic control devices with consistent design standards.”

MUTCD 2000

ANTIOCH PUBLIC SAFETY COMMITTEE
847 MAIN STREET ANTIOCH, IL 60002
Phone: (847) 395-1000 Fax: (847) 395-1920

2003



ADVISORY BOARD

Thomas Ploss
Milwaukee Rail Road Attorney /
Social Security Judge (Retired)

Michael Doran
President - Landmarks Homes

David Dituro
President - Turo Electric

Debbie Rummel
Department Head of Drivers Education
Antioch High School

Charles Fagan
Chief of Police – Village of Antioch

Jeff Van de Voorde
Assistant Chief – Antioch
Fire Department / 1st Fire District

James E. Fisk
President
National Railroad Equipment Co.

Shawn Savka
Silver Lake, WI
Safe Crossing Committee

Lanny F. Wilson, M.D.
Chairman
DuPage Railroad Safety Council

VILLAGE OF ANTIOCH

Taso Maravelas, Mayor
874 Main Street, Antioch, IL 60002
T: (847) 395-1000 F: (847) 395-1920
E-mail: vlgclerk@antioch-il.org
WWW.ANTIOCH-IL.ORG

SAFE CROSSING CONCEPT

Table of Contents

Plan: New Safe Crossing Concept

Objective: Test New Concept in Antioch, Illinois

We are currently in the discussion stage with the Federal Railroad Administration (FRA) and the Illinois Commerce Commission (ICC)

- For More Information: Call the Antioch Village Hall (847) 395-1000 or Safe Crossing Chairman; Alan Knutsen (847) 395-1503
- For progress updates go to website www.antioch-il.org

Two Gate Safe Crossing Concept

- **New Equipment**

1. Traffice Signals (10V DC LED)
2. Longer Gates
3. Gate Lights (more)
4. Walk Lights (Optional)

- **New Environment**

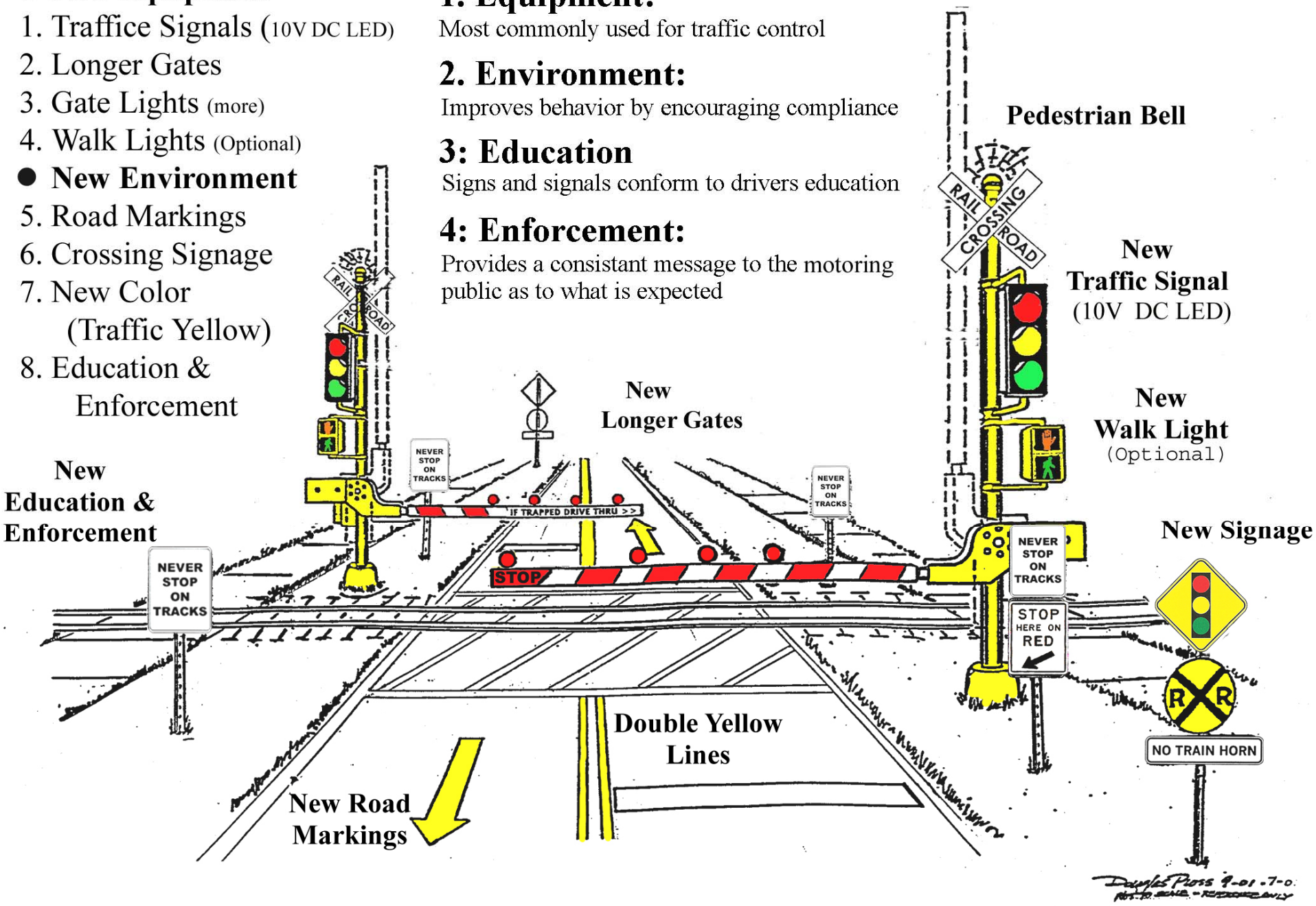
5. Road Markings
6. Crossing Signage
7. New Color (Traffic Yellow)
8. Education & Enforcement

1. Equipment: *
Most commonly used for traffic control

2. Environment:
Improves behavior by encouraging compliance

3: Education
Signs and signals conform to drivers education

4: Enforcement:
Provides a consistant message to the motoring public as to what is expected



*** ALL EQUIPMENT IS UNIFORM TRAFFIC CONTROL DEVICES - MUTCD 2000**

Active - Safe Crossing Concept

- **New Equipment**
  1. Traffice Signals (10V DC LED)
  2. Walk Lights (Optional)
- **New Environment**
  3. Road Markings
  4. Crossing Signage
  5. New Color (Traffic Yellow)
  6. Education & Enforcement

1. Equipment: *

Most commonly used for traffic control

2. Environment:

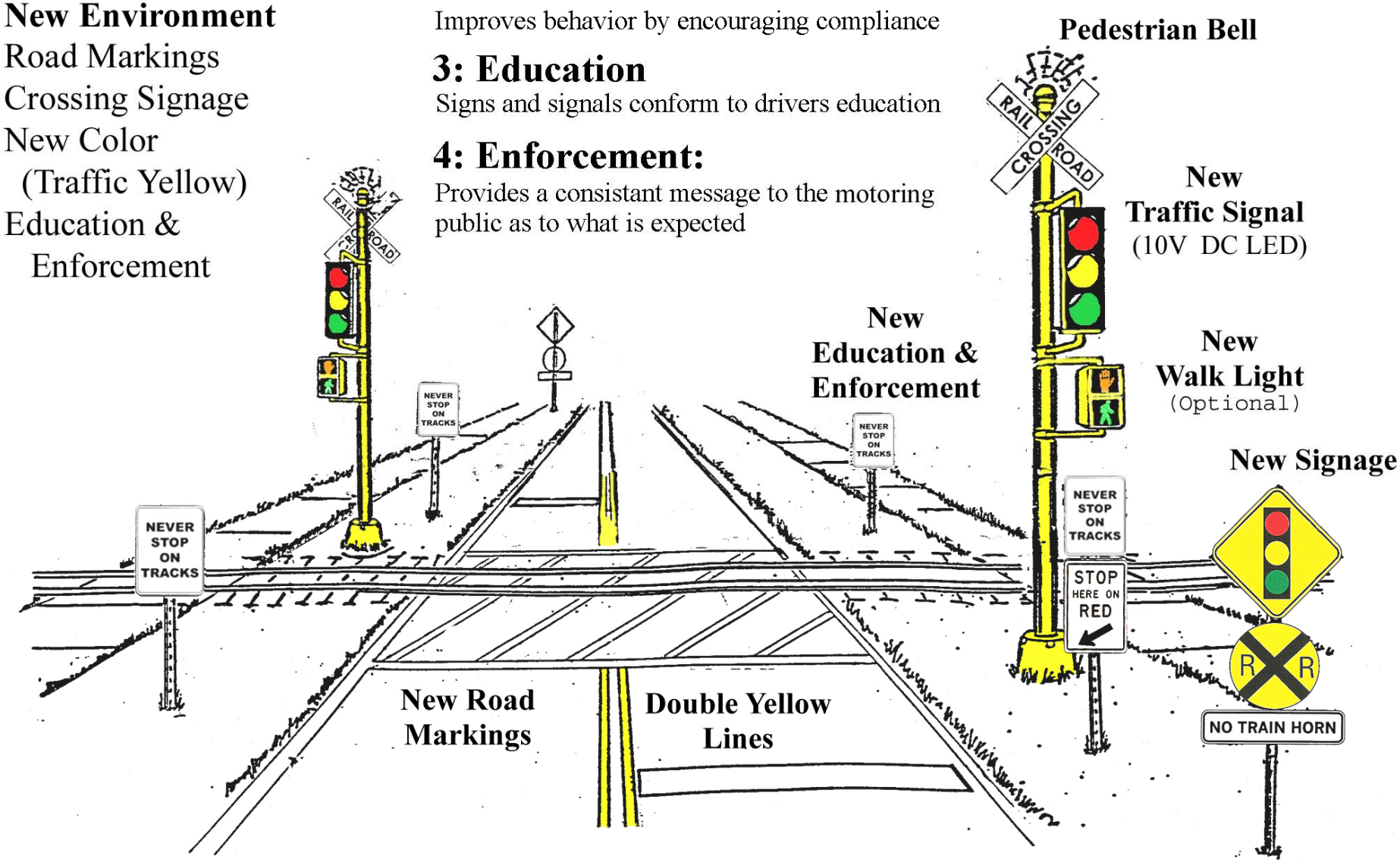
Improves behavior by encouraging compliance

3: Education

Signs and signals conform to drivers education

4: Enforcement:

Provides a consistant message to the motoring public as to what is expected



*** ALL EQUIPMENT IS UNIFORM TRAFFIC CONTROL DEVICES - MUTCD 2000**

Passive - Safe Crossing Concept

- **New Equipment**

1. Stop Signs

- **New Environment**

2. Road Markings
3. Crossing Signage
4. New Color
   (Traffic Yellow)
5. Education &
   Enforcement

1. Equipment: *

Most commonly used for traffic control

2. Environment:

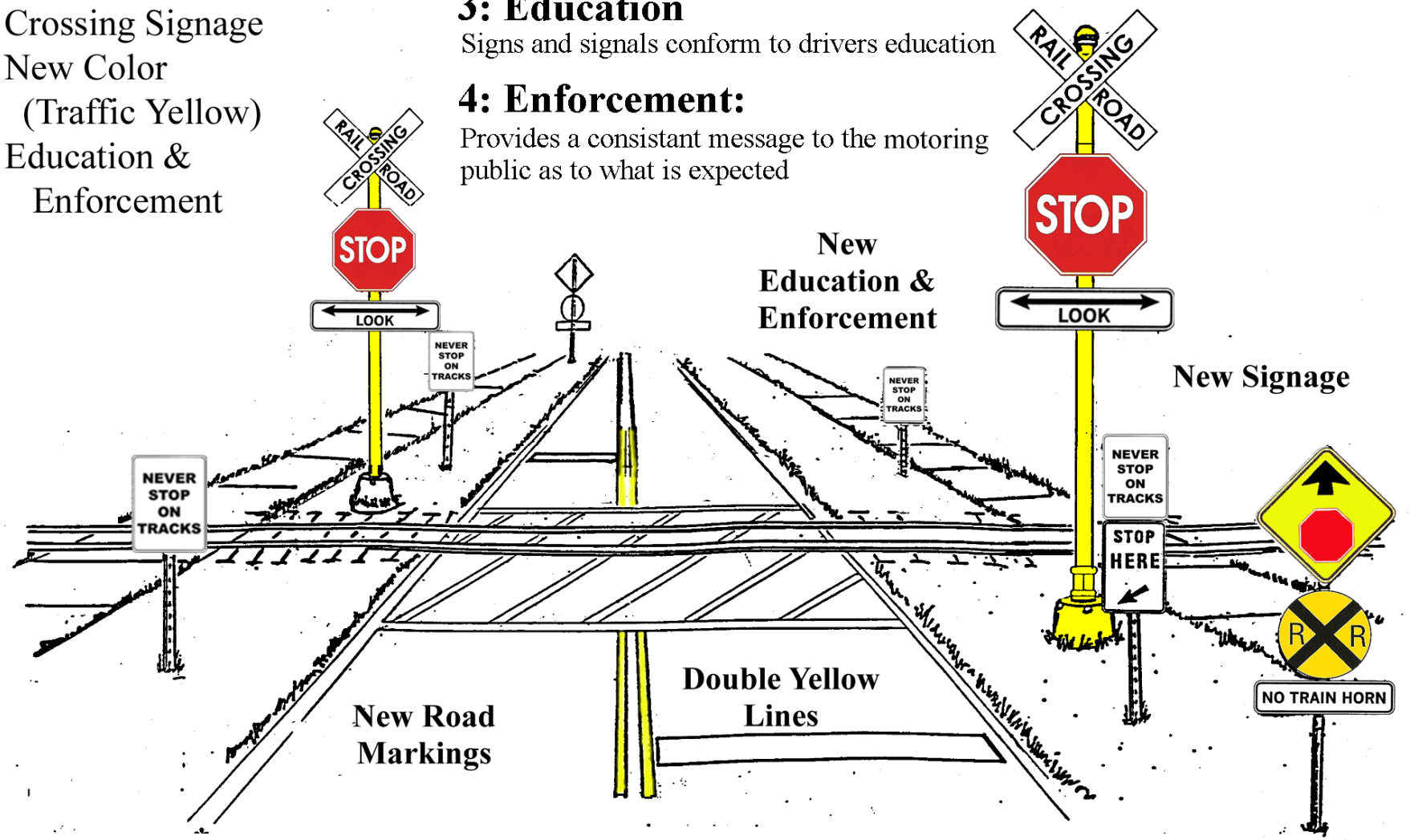
Improves behavior by encouraging compliance

3: Education

Signs and signals conform to drivers education

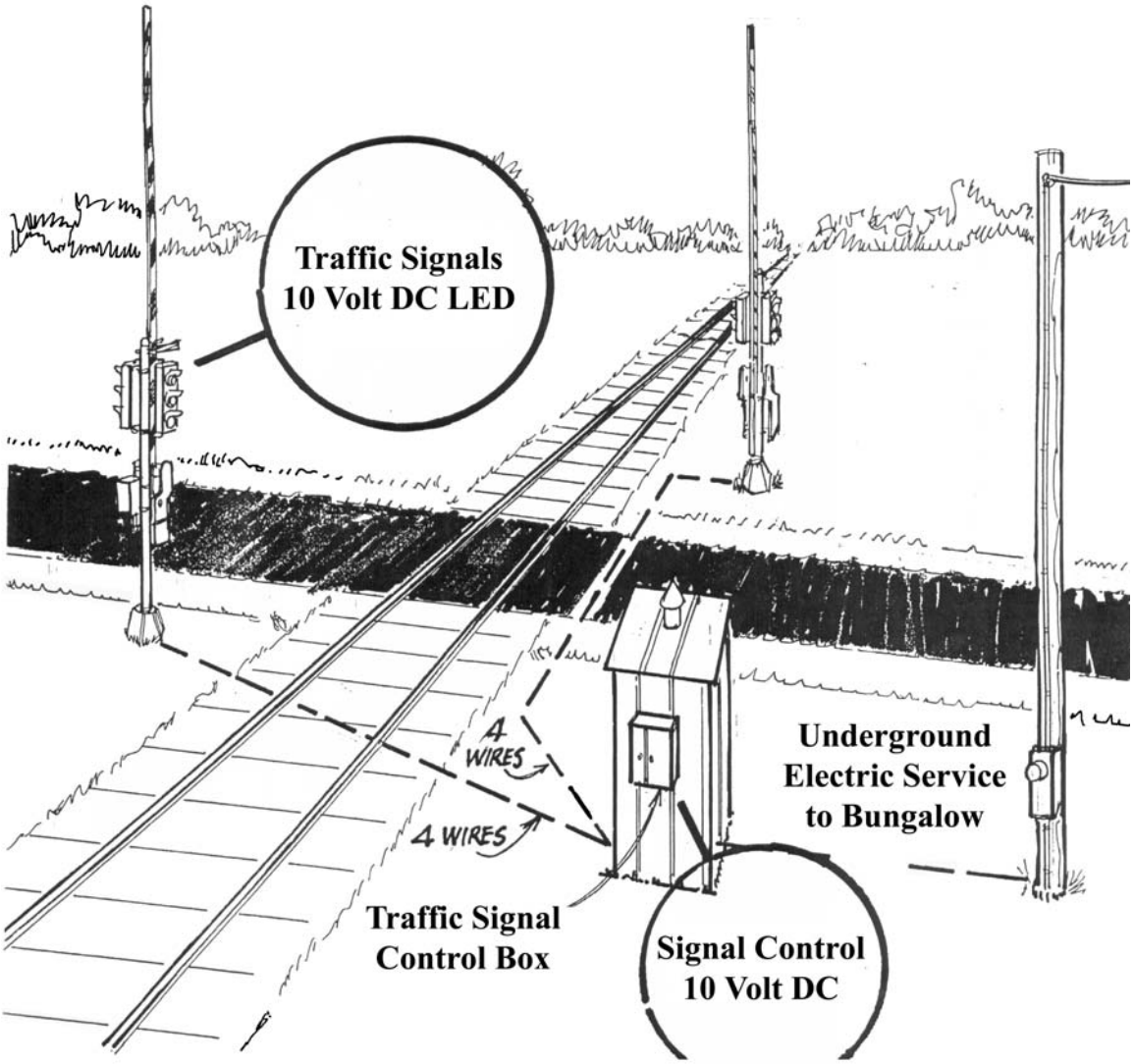
4: Enforcement:

Provides a consistant message to the motoring public as to what is expected



* ALL EQUIPMENT IS UNIFORM TRAFFIC CONTROL DEVICES - MUTCD 2000

Retro Fit Equipment to Existing Railroad System

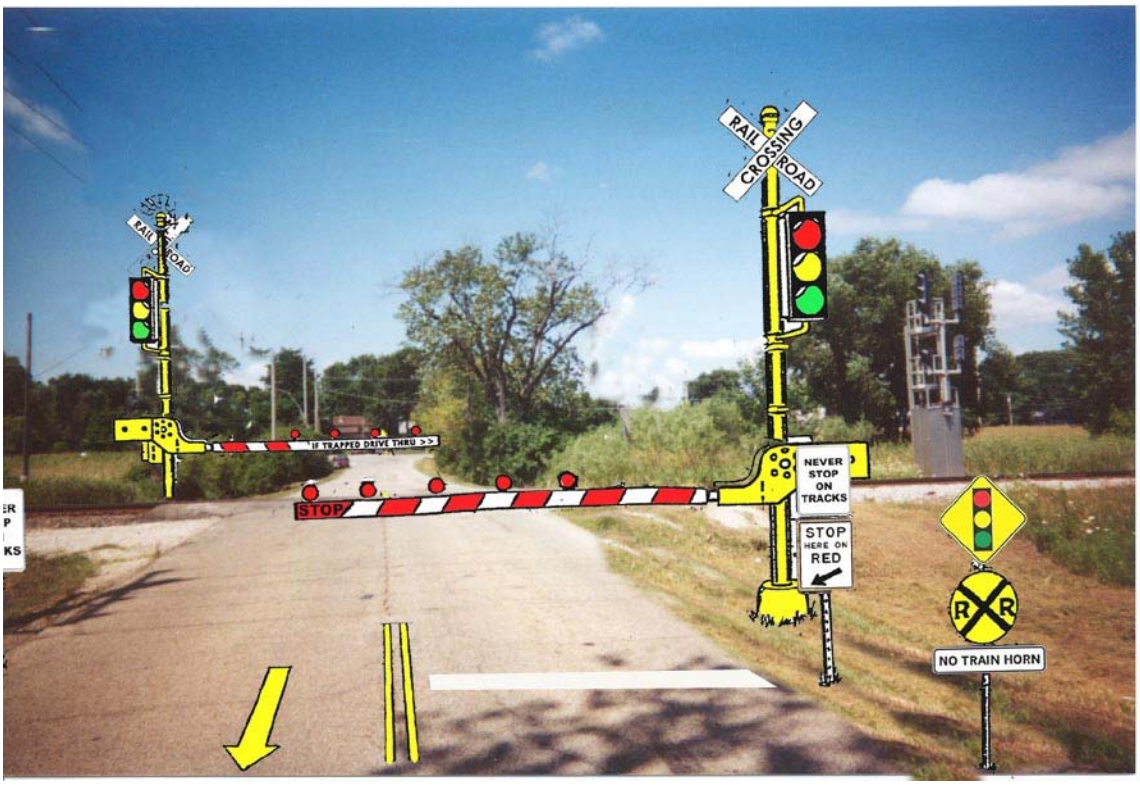


Retro Fit Equipment			
4	Red-Yellow-Green LED Traffic Signals		
1	Signal Control		
1	Enlarged 490 Ahr Battery Bank		
2	Additional Gate Lamps		
2	Fiberglass MID or TIP Sections		

1S

Computer Simulation of Antioch Area Crossing

<u>Grimm Road</u> (Township Road)
Looking West from the East side of the tracks toward Hwy 83



SAFE CROSSING CONCEPT

2

How the 4 Point “Safe Crossing Concept” Works

1. **Equipment**: Create Standard Traffic Intersection Look
- Standard Traffic Signals (10 Volt LED)
- 50% Longer Gates
- Paint Crossing Equipment to Match Standard Intersections

2. **Environment**: New Behavior / Consistent Message
- Drivers are conditioned to stop and stay stopped for conventional traffic signals
- Treat and present rail crossings as intersections, not a special optional stop situation
- Longer gates eliminate the drive around invitation

3. **Education**: Same as Roadways
- Teach new crossing safety in drivers education
- Include notices in all vehicle and drivers license renewals
- On site education via new signage

4. **Enforcement**: Consistent Expectations
- Strictly enforce crossing violations
- Motorists better understand violations

Costs: Much Less than you would think ……
- This concept uses equipment and infrastructure that is in everyday use. Very cost effective implementation can be done at the local level. All the necessary elements are in everyday use in every community.

Our estimated equipment cost for a two-gate crossing is under $9,000. If this cost were shared by the Village, State, Federal Government, and Railroad; we are talking small change.

What The 4 Point "Safe Crossing Concept" Costs

This is a low tech / high concept application using uniform traffic control devices that are approved, tested and readily available at known costs.

Cost Estimate Sheet

Retro Fit Equipment Costs

Item	Qty	Cost	Totals
Traffic Signals (10 Volt DC LED)	4	650.00 ea	2,600.00
Mounting Hardware Sets	4	70.00 ea	280.00
Signal Control Equipment	1	1,100.00 ea	1,100.00
Optional / Walk Lights	2	_____ ea	_____
Longer Gates w/Additional Lights	2	450.00 ea	900.00
Additional Battery Backup	1	4,000.00 ea	4,000.00
Labor:		_____	_____
			_____
		Estimated Equipment Cost	**$ 8,880.00**

- This is a Best Guess Estimate - based on what we know at this time
- Painting and Walk Lights are not included in this estimate
- Estimate is based on connecting retro fit to existing railroad system
- Signage and Road Markings are already in most local road budgets

4

WHY THIS CONCEPT HAS UNIQUE MERIT

This is a Low Tech / High Concept Plan that can increase Safety and reduce the Loss of Life, Equipment, Money and Infrastructure in a degree that is totally out of proportion to it's low cost. A grim comparison is the Low Tech / High Concept Plan that caused billions of dollars in material and economic damage in addition to a horrific loss of life, all for the price of a plane ticket. Large results do not necessarily require large expenditures of money. Most of the recent safety improvements directed at railroad crossings have been very costly because of their very high tech nature and have little to no safety or maintenance history when compared to this low tech approach, which uses time tested equipment and technology. This simple plan employs standard 'off the shelf' components that are readily available and do not require special manufacturing or installation. The costs are easily determined since all the components are in everyday use throughout the world. Each piece of equipment has been tested for years, is recognized and understood by all motorists, functions in all weather conditions and have known maintenance costs. This concept can be implemented in stages because it has three distinct parts that are not dependent on each other; (1) The traffic signals, (2) longer gates and (3) the road markings and signs can be installed at different times and in any order without compromising the safety value of the other components. This feature alone helps make the concept very cost effective because each stage can be handled at the local level by local suppliers while drawing from local road budgets for signs and road markings. As shown, the average equipment cost per two-gate crossing is under $9,000 and a rural passive crossing can be paid for from local road budgets. Improved traffic control at rural passive crossings will go a long way toward discouraging the dangerous practice of 'Jackassing' by young drivers, which has recently become a fad costing several lives this past year. It all boils down to safety.

IMPORTANT UNDERLYING CONSIDERATIONS

This is a low tech / high concept application using uniform traffic control devices that are approved, tested and readily available at known costs.

This is a reconfiguration of uniform traffic control devices that are in everyday use all across our country / the world.

Discrediting this configuration is to disparage our entire existing highway traffic control system.

Motor vehicle operation is a visual activity mandating the right visual equipment for safe decision making.

Clear and accurate vision is a driving requirement but hearing is not.

Significant increases in Rail Road crossing safety cannot be attained by audio means.

It is in the best interest of all concerned to abandon the costly practice of patching the existing unsafe and outdated crossing configurations